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## Regents Universities and the 2008 Summer Floods

### ISSUE

This *Issue Review* examines the flooding experienced by the University of Iowa and to a much lesser degree by Iowa State University and the University of Northern Iowa.

### AFFECTED AGENCIES

Regents Universities

### CODE AUTHORITY

Chapters 262 – 268

### BACKGROUND

#### University of Iowa

Chronology: In late May of 2008, severe storms moved across portions of Iowa dumping large quantities of rain, particularly in eastern Iowa. On June 3, the University of Iowa Facilities Management and University Housing personnel began sandbagging around the Mayflower Residence Hall located just north of the main campus and across Dubuque Street from the Iowa River in Iowa City. On June 4, the dormitory was evacuated and on June 5, rising water closed Dubuque Street. On June 9, activities at the Arts Campus on the west bank of the Iowa River were suspended and art works were removed to a safe location. On June 10, water topped the emergency spillway upstream at the Coralville spillway releasing flood waters. Sandbagging on the Arts Campus continued until heavy rains the night of June 12 made it too dangerous. On June 13 flood waters topped the Art Campus dikes. Authorities noted that the sandbag dikes contained the river current and reduced the damage to the buildings along the Iowa River. The river crested on June 15 at 31.5 feet, 9.5 feet above flood stage, and remained above flood stage into early July. On July 9, flood waters receded allowing Dubuque Street to reopen. The clean up continues.

Buildings Impacted: Nineteen University buildings were closed by flooding: Adler Journalism Building, Art Building, Art Building West, Becker Communications Studies Building, Danforth Chapel, English Philosophy Building, Hancher Auditorium, Hawkeye Court Apartments (75 of 300 units), Iowa Advanced Technology Labs, Iowa Memorial Union, Main Library, Mayflower Residence Hall, Madison Street Services Building, Museum of Art, North Hall, Power Plant, Stanley Hydraulics Lab and Hydraulics Annexes, Theater Building, and Voxman Music Building. There was a loss of 53 of 217 classrooms.

Flood waters infiltrated the Power Plant and a number of other buildings through the utility tunnel system, and water caused structural failures in some tunnels. With the Power Plant offline, portable steam generators were set up at the Hospital Complex to augment the

emergency back-up system and near Burge Hall to supply the east side of campus. Portable chillers were also installed. Purchased electricity replaced what had been generated by the Power Plant. The Hospital remained fully operational.

The major focus for the recovery was to provide classrooms and student housing for the fall semester. To move quickly, the Governor suspended the regulatory requirements of Sections 262.34A and 68B.3, Code of Iowa, regarding the request for bidding and contract awards. In a special meeting on July 2, the Board of Regents approved a waiver for flood recovery capital projects. Construction contractors that had previously won bids for work with the University were prequalified and bid on the fast-tracked projects. Now that the campus is operational, standard bidding practices have resumed.

On August 15, ten days prior to the start of fall classes, the English-Philosophy Building, Adler Journalism Building, Becker Communications Studies Building, and the 1,000-bed Mayflower Residence Hall (less 39 beds) returned to normal operations. All totaled, residential halls are at 100.1% of capacity in the fall semester. Reopening the Mayflower avoided undue stress on the Iowa City housing market.

Summer Semester: Summer classes were suspended for one week beginning on June 13. The three-week session had ended, and the six-week session had not started. Only the eight-week session was affected. Faculty members used a variety of strategies to make up the missed time, including adding additional meeting times and changing out of class assignments. No faculty member concluded that instruction was compromised to the point the class needed to be cancelled. Out of 10,956 summer students, 218 withdrew, 56 voided their registrations (essentially the same as withdrew), and 121 dropped one or more classes.

The most significant problem for the summer session was loss of classroom space. From available information, it appears that 84 summer classes and more than 1,000 students were affected in some way. With shuffling and reassignments, the University was able to accommodate all courses and events for summer session. The loss of use of the Iowa Memorial Union affected the Admissions' Orientation Program and the Iowa Summer Writing Festival. Orientation was condensed from two days to one. The Writing Festival and other essential events were relocated, but not always in ideal space.

Fall Semester: Enrollment for the fall semester increased over last year, but the incoming class is approximately 40 students less than the last two years. Only five of the students that withdrew their registrations specifically mentioned the flood. So the flood does not appear to have had a significant impact on enrollment.

The University did not cancel any fall classes, but 1,522 classes were affected in some way, usually by moving into leased and repurposed space. The Art, Art History, Music, and Theatre programs were most severely affected. The Art programs relocated into leased space in a former Menard's building located southwest of campus. A Cambus route was added to the location. The School of Music holds classes in 17 buildings; none have acoustic treatments; major ensembles perform in auditoriums and other space around Iowa City. Theatre Arts holds classes in four buildings and does not have a public performance space. One main stage production was cancelled, and another will be held off campus. Smaller plays are being held in five different rooms. Only librarians have access to the Music and Art Libraries, so retrieval of books and other materials is slow.

In regard to cultural events, the loss of Hancher Auditorium led to the cancellation of a number of the 30 previously scheduled events. Eighteen events have moved to other locations, including the Englert Theater, two high school auditoriums, a church, a golf course clubhouse, the Marriott Hotel, and the Carver-Hawkeye Arena.

As for sports, Cretzmeyer Track was underwater for two weeks delaying upgrades and damaging the track and buildings. The men's and women's track and field programs will relocate their home competitions in the spring of 2009. The Big Ten Track and Field Championships scheduled to be in Iowa City have relocated to Ohio State University. The playing surfaces of the recreational and varsity softball fields were washed away and concession and storage facilities were damaged. The varsity field has been replaced with a new surface less susceptible to water, and the outfield has new sod. The women's softball team resumed play by hosting a tournament on the weekend of October 4 and 5. Stadium and dugout repairs are underway and will be completed for the first home game on March 22. The recreational fields will be ready for play by spring 2009.

With classrooms and dormitories open, repair to the Power Plant and steam tunnels became a priority. The natural gas boilers were brought back on line in mid-September, and the Power Plant was officially declared operational on October 28 in time for the winter heating season. Work continues on flood mitigation projects for the power plant system, including the installation of bulkhead barriers designed to seal flood waters out of the steam tunnels.

### **Iowa State University**

Iowa State University had some storm damage on campus and on the Research Farms around the State. At first it appeared there would be sizable reductions in crop yields and livestock problems, but with the excellent crop growing weather, yields are expected to be in the normal range. Cost estimates are provided below.

### **University of Northern Iowa**

The University of Northern Iowa had minimal storm damage. Flooding at the Tallgrass Prairie Center forced the delay of the "Prairie Power Research Project" until next year to begin springtime seeding. The Project was to determine the maximum sustainable production of biomass and mixture of prairie species. Cost estimates are provided below.

## **CURRENT SITUATION**

The University of Iowa is operational, and at the beginning of October, the flood mitigation consultant and campus planning consultant met with the University's Flood Mitigation Task Force to initiate flood mitigation planning. The consultants, in conjunction with the University's Hydraulics Institute, will gather detailed data and prepare a flood model for future decision making. For the long-term, consultants will evaluate options in regard to campus master planning and flood mitigation. Building-by-building planning, river corridor planning and flood mitigation, and coordination with Iowa City and Coralville will be undertaken. More immediately, the mitigation consultant is evaluating options for Hancher Auditorium, Voxman Music Building, and Clapp Hall with a goal of reopening by January 2010.

**BUDGET IMPACT****University of Iowa**

The estimated cost of the flooding at the University of Iowa totals \$231.8 million distributed as follows:

Building damages	\$ 136.2 million
Building content damages	55.6 million
Extra expenses	15.0 million
Debris removal	20.0 million
Emergency protection measures	5.0 million
Total	<u>\$ 231.8 million</u>

Extra expenses include such things as natural gas for power generation that replaced the less expensive coal and oat hulls and for leasing space for displaced classes. The cost estimate does not include the cost of business interruption or future mitigation costs, so total costs will be higher than the above estimate.

The University has carried flood insurance from FM Global for a number of years. The annual \$2.5 million premium provides \$1.0 billion of coverage campus-wide and includes a separate contract with Lloyds of London to cover the fine arts collection. The FM Global contract limits flood damages to \$250.0 million with a \$40.0 million cap on buildings located roughly in the 100-year flood plain. The University also purchased federal flood insurance on 14 buildings located near the Iowa River that provides up to \$500,000 per building and \$500,000 per building for contents. Federal funding is being provided through the Federal Emergency Management Agency (FEMA). The University of Iowa is responsible for the remainder, an estimated \$25.0 million.

The University has renewed its policy with FM Global. The new policy continues campus-wide coverage at \$1.0 billion, and reduces flood coverage to \$120.0 million. The annual premium has increased to \$5.0 million with a \$3.0 million deductible.

On January 26, 2009, University of Iowa President Sally Mason announced that FEMA will finance "either the replacement or restoration and mitigation" of the Hancher Auditorium, Voxman Music Building, and Clapp Recital Hall music complex and the Art Building East complex. FEMA's use of the term "replacement" means rebuilding in a new location outside the flood plain. For these two complexes, FEMA will finance 90.0% of the cost of either replacement or restoration and mitigation. The University will be evaluating the costs and benefits of moving to a new location or remaining and mitigating the flood threat and will present options to the Board of Regents for approval.

For the other major buildings damaged by the flood, FEMA will provide 90.0% of the cost of in-place restoration and mitigation only. That is, FEMA will not finance moving to new locations and rebuilding the other buildings.

**Iowa State University**

The total damages to Iowa State University are still being determined and are estimated to be \$847,000, distributed as follows:

Building and infrastructure damage	\$ 110,885
Crop budget impacts	454,676
Livestock budget impacts	281,850
Total	<u>\$ 847,411</u>

The University is still working with FEMA so the final federal support is not yet known. So far, \$55,000 in losses that may be covered have been identified.

**University of Northern Iowa**

The University of Northern Iowa's storm damage totaled \$67,000 distributed as follows:

Tallgrass Prairie Center	\$ 46,786
Back-up transmitter for KRNI-AM in Mason City	15,212
Clean-up costs	5,453
	<u>\$ 67,451</u>

For more information on the 2008 summer floods, please contact the Legislative Services Agency.

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